

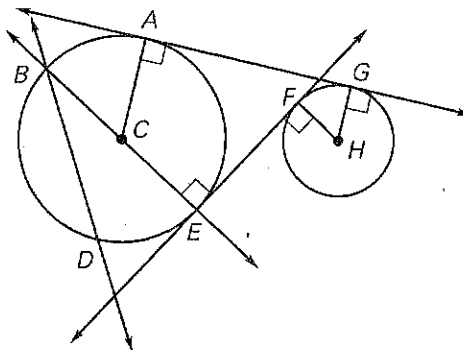
LESSON
10.1

Practice C

For use with pages 650-658

State the best term for the given figure in the diagram.

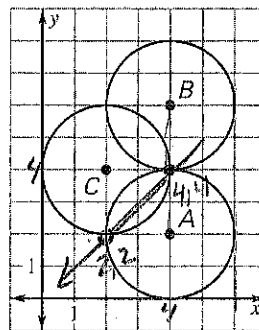
1. F pt of tangency
2. \overleftrightarrow{FE} common internal tangent
3. \overline{HG} radius
4. \overline{DB} chord
5. C center
6. \overline{BE} diameter
7. \overleftrightarrow{DB} secant
8. \overleftrightarrow{AG} common external tangent



Use the diagram at the right.

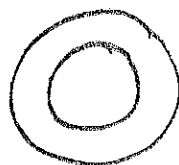
 $\begin{matrix} d & r & r \\ 4, 2 & 4, 2 & 4, 2 \end{matrix}$

9. Find the diameter and radius of $\odot A$, $\odot B$, and $\odot C$.
10. Describe the point of intersection of all three circles. $(4, 4)$
11. Describe all the common tangents of $\odot A$ and $\odot B$.
 $x = 6$ $x = 2$ $y = 4$
12. Describe the common secant of $\odot A$ and $\odot C$ that passes through both intersections of the two circles.
 $y = x$



Draw a pair of circles with the characteristics described.

13. non-intersecting circles, no common tangents



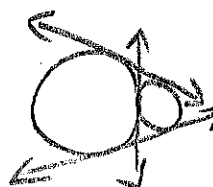
14. intersecting circles, 2 common tangents



15. 1 point of intersection, 1 common tangent



16. 1 point of intersection, 3 common tangents

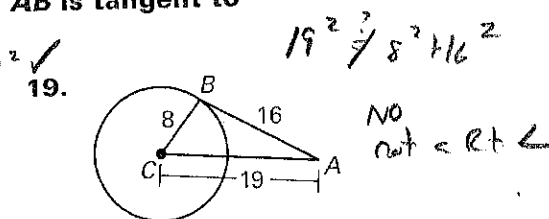
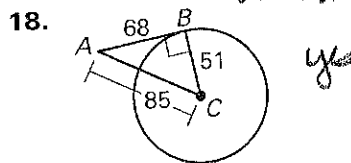
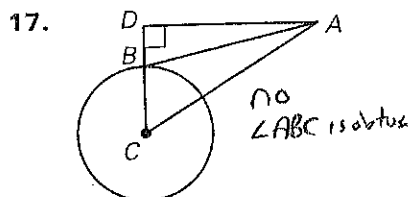


LESSON
10.1

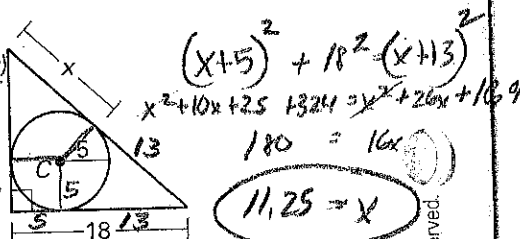
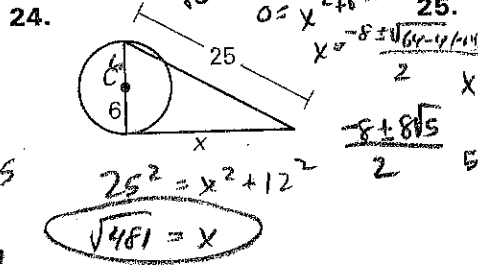
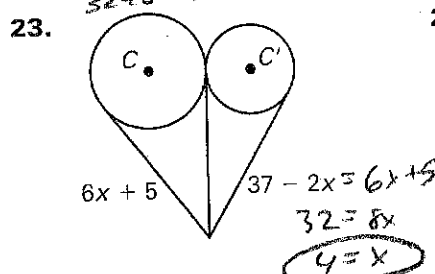
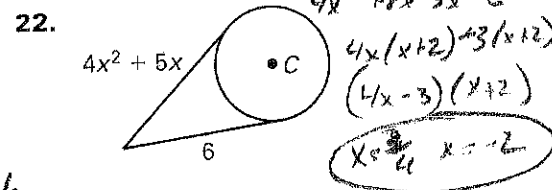
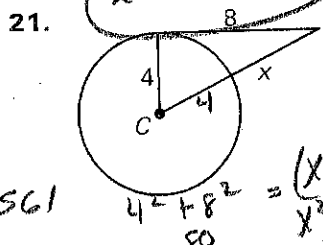
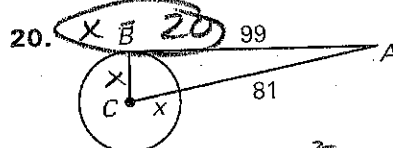
Practice C *continued*

For use with pages 650–658

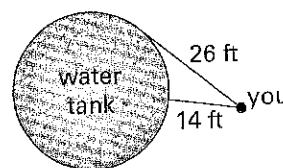
In the diagram, \overline{BC} is a radius of $\odot C$. Determine whether \overline{AB} is tangent to $\odot C$. Explain your reasoning.



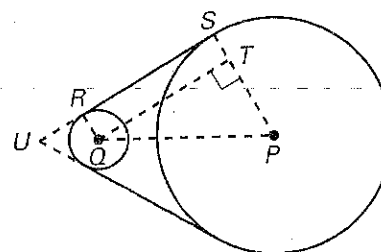
In the diagram, assume that segments are tangents if they appear to be. Find the value(s) of x .



~~26.~~ **Water Tank** You are standing 14 feet from the edge of a cylindrical water tank and 26 feet from a point of tangency. The tank is 10 feet tall. What is the volume of the tank in cubic feet?



~~27.~~ **Pulleys** The figure shows a pulley system in which a belt is wrapped around two pulleys so that one can drive the other. \overline{RS} is tangent to $\odot Q$ at R and to $\odot P$ at S . \overline{QT} is perpendicular to \overline{SP} , and Q and P are the centers of the circles. Let $QR = 2$ in., $PS = 8$ in., and $PQ = 12$ in.



- Write a paragraph proof to show that $QRST$ is a rectangle.
- Find RS .
- Find $m\angle P$.

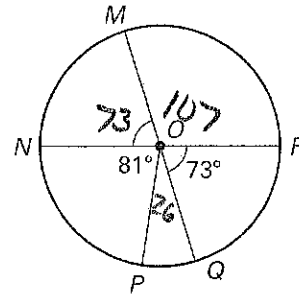
LESSON
10.2

Practice C

For use with pages 659-663

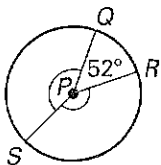
\overline{MQ} and \overline{NR} are diameters of $\odot O$. Determine whether the given arc is a minor arc, major arc, or semicircle. Then find the measure of the arc.

1. \widehat{MN} minor 73
2. \widehat{NQ} minor 107
3. \widehat{NQR} semi 180
4. \widehat{MRP} major 206
5. \widehat{PN} minor 81
6. \widehat{MNQ} semi 180
7. \widehat{QR} minor 73
8. \widehat{MR} minor 107
9. \widehat{QMR} major 287
10. \widehat{PQ} minor 26
11. \widehat{PRN} major 279
12. \widehat{MQN} major 287



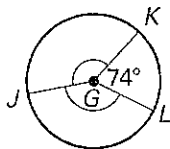
Find the indicated arc measure.

13. $m\widehat{QS}$



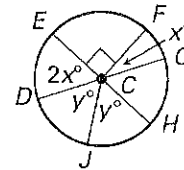
$$\begin{array}{r} 360 \\ - 52 \\ \hline 308 \\ \div 2 \\ \hline 154 \end{array}$$

14. $m\widehat{LKJ}$



$$\begin{array}{r} 360 \\ - 74 \\ \hline 286 \\ \div 2 \\ \hline 143 \\ + 74 \\ \hline 217 \end{array}$$

15. $m\widehat{DH}$

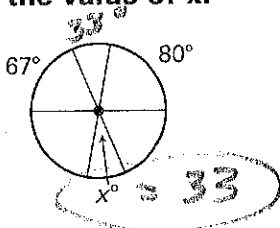


$$\begin{array}{l} 3x = 90 \\ x = 30 \end{array}$$

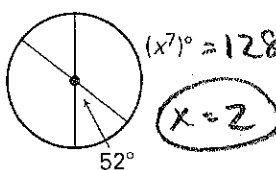
$$\begin{array}{l} 2y + 60 = 180 \\ 2y = 120 \\ y = 60 \end{array}$$

Find the value of x.

16.

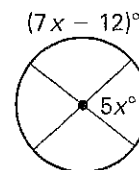


17.



$$\begin{array}{l} (x+7)^\circ = 128 \\ x = 2 \end{array}$$

18.



$$\begin{array}{l} 12x - 12 = 180 \\ 12x = 192 \\ x = 16 \end{array}$$

\overline{AC} and \overline{BD} are diameters of $\odot E$. Find the measure of the given arc if $m\widehat{ACD} = 316^\circ$.

19. $m\widehat{AD}$

44

20. $m\widehat{BC}$

44

21. $m\widehat{BCA}$

224

22. $m\widehat{DCB}$

180

\overline{RT} and \overline{PS} are diameters of $\odot N$. Find the measure of the given arc if $m\widehat{TP} = 47^\circ$.

23. $m\widehat{ST}$

133

24. $m\widehat{PR}$

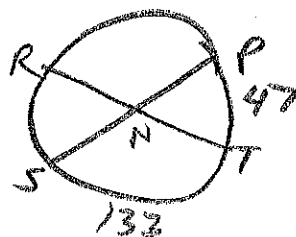
133

25. $m\widehat{RTP}$

227

26. $m\widehat{STR}$

313



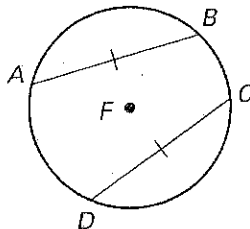
LESSON 10.3

Practice C

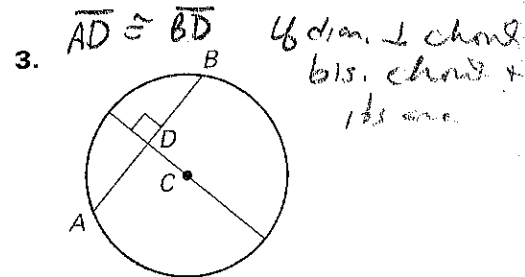
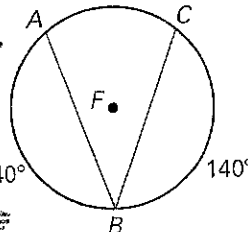
For use with pages 664-670

What can you conclude about the diagram? State a postulate or theorem that justifies your answer.

$\overline{AB} \cong \overline{CD}$
If chords \cong
then arcs \cong

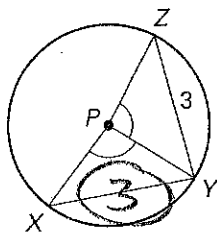


2. $\overline{AB} \cong \overline{BC}$
If arcs \cong ,
then chords \cong

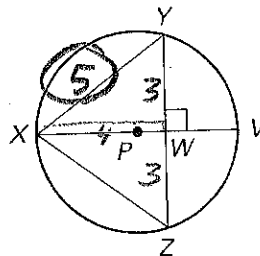


P is the center of the circle. Use the given information to find XY.

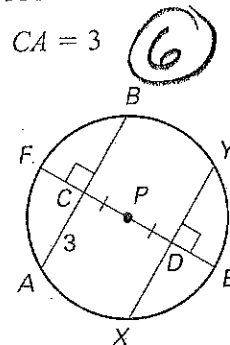
4. $ZY = 3$



5. $ZY = 6, XW = 4$

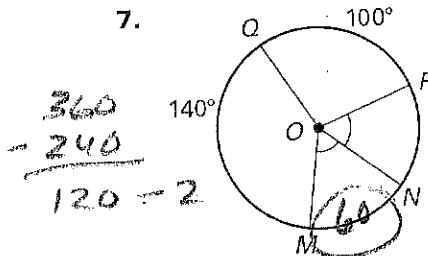


6. $CA = 3$

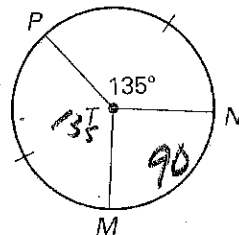


Find the measure of MN.

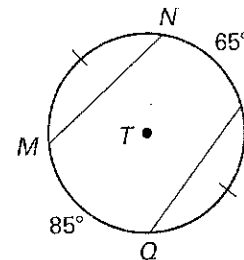
7.



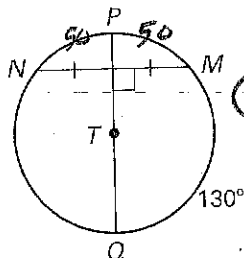
8.



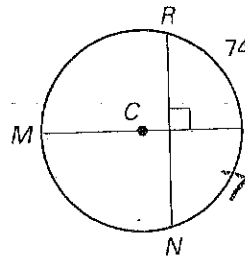
9.



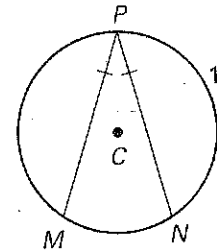
10.



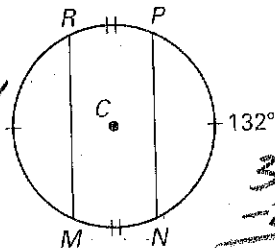
11.



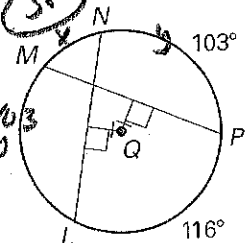
12.



13.



14.



15.

